7.Sum of the series:

1!+(1+2)!+(1+2+3)!+⋯+(1+2+⋯+n)!

import math

def sum\_series(n):

total = 0

for k in range(1, n+1):

s = k \* (k + 1) // 2 # sum of first k natural numbers

total += math.factorial(s)

return total

# Example usage:

n = 4

result = sum\_series(n)

print(f"Sum of the series for n={n} is: {result}")